Hydrocarbons and a New Strategic Region: The Caspian Sea and Central Asia

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The United States currently imports 51 percent of its crude oil—19.5 million barrels daily. The Energy Information Administration estimates that by 2020, the United States will import 64 percent of its crude—25.8 million barrels per day.[1] The United States buys much of its oil from Ven-ezuela and the Persian Gulf; Europe buys from the Persian Gulf and the North Sea. For years Europe has bought natural gas from the Soviet Union and Russia, but Eurasian oil has made limited inroads into the European market. This may change. The Caspian Sea appears to be sitting on yet another sea—a sea of hydrocarbons. Western oilmen flocking to the area have signed multibillion-dollar deals. US firms are well-represented in the negotiations, and where US business goes, US national interests follow.

Well-dressed urbanites pass stores with signs in Russian, English and Azeri in downtown Baku.

The Caspian Sea basin has long been a source of oil and natural gas. The fire-worshipping Zoroastrian religion was founded on the western shores of the Caspian as Zoroastrians built temples around local pillars of fire fed by escaping natural gas. The two great pre-World War I oil fields were in Texas and the Caspian Sea region of Imperial Russia. After the war, when civil war raged between Russian Whites and Reds, British forces landed in Batumi in a failed attempt to influence the future of Caspian Sea oil. During World War II, Adolph Hitler launched Operation *Blau* to capture the Caspian Sea oil fields.

Now that the Soviet Union has dissolved, Caspian Sea oil draws international attention once again. Western oil companies, hoping to find new reserves at a reasonable cost, have cut deals with Azerbaijan, Kazakhstan, Turkmenistan and Russia. Caspian region oil reserves might be the

third largest in the world (following Western Siberia and the Persian Gulf) and, within the next 15 to 20 years, may be large enough to offset Persian Gulf oil. Caspian Sea oil and gas are not the only hydrocarbon deposits in the region. Turkmenistan's Karakum Desert holds the world's third largest gas reserves—three trillion cubic meters—and has six billion barrels of estimated oil reserves.[2] Other oil fields in adjacent Uzbekistan, Tajikistan and Kyrgyzstan further increase the known reserves of cheap energy available to oil-dependent economies and are drawing outside investors.

The presence of these oil reserves and the possibility of their export raises new strategic concerns for the United States and other Western industrial powers. As oil companies build oil pipelines from the Caucasus and Central Asia to supply Japan and the West, these strategic concerns gain military implications. The dominant role of the Middle East energy supply may be offset by new suppliers operating from an even less mature and stable environment. The uninterrupted supply of oil to global markets will continue to be a key factor in international stability.

Various political, economic, sovereignty, military and cultural issues could threaten uninterrupted delivery of oil from the Caspian region. Should the United States continue to play a vigorous role in supporting regional stability, US Armed Forces will need to understand the political, economic and cultural dynamics, as well as US interests in this region where Western oil companies already have signed contracts potentially worth more than $100 billion. Hopefully, US forces will be spared future regional presence beyond advisory and assistance roles since effective military presence would require basing rights and significant investment to develop theater infrastructure and establish forward supply and staging areas.

The Persian Gulf, Caspian Sea, Russia and Central Asia

Petroleum geologists claim to have discovered 17 billion barrels of crude oil in the Caspian Sea, an amount roughly equal to the European North Sea fields and almost one-third of Venezuela's holdings.[3] Current estimates indicate that, in addition to huge gas deposits, the Caspian basin may hold as much as 200 billion barrels of oil—33 times the estimated holdings of Alaska's North Slope and a current value of $4 trillion.[4] It is enough to meet the United States' energy needs for 30 years or more.[5] This sizable estimation still does not match the Persian Gulf states' estimated reserves. However, with the collapse of the Soviet Empire, the Caspian region has assumed new global importance. Projected oil reserves for the Iranian, Kazakh, Azeri, Turkmenian and Russian Caspian littoral are 25 billion metric tons—nearly 15 percent of the world's total oil reserves (and 50 percent of its gas reserves).[6]

During the Soviet era, Soviet oilmen extracted Caspian Sea oil mainly for use within the Soviet Union and Warsaw Pact. The known Soviet Caspian Sea oil sites had been producing for a century and were nearing depletion. Soviet oil exploration and exploitation concentrated on sites that were more geographically and technologically accessible. However, recent surveys reveal oil reserves in the Caspian Sea that could significantly boost the economies of its five bordering states—Russia, Azerbaijan, Iran, Turkmenistan and Kazakhstan.

But it takes money to make money; in this case, money to exploit the difficult-to-reach deposits, money to remove the hydrosulfuric and mercaptan contaminates from the east shore oil, money

to deal with the region's high geopressures, money to repressurize some of the prematurely abandoned fields and money to move oil to the consumer. Since the Soviet Union did not develop advanced technological solutions to these problems, Western money and technology are now key to exploiting energy in the region. Predictions abound and most are probably overstated. Still, if Western oil companies are able to begin producing oil from fields in the Caspian Sea, Central Asia and Russia, almost five million barrels of oil per day could be pumped from these fields into the open market by 2010.[7]

The Pipeline Blues

Bringing oil and gas from the Caspian Sea and Central Asia to market is difficult. Pipelines are the only feasible way to move commercial quantities. A major factor in developing Central Asian hydrocarbons and supporting oil and gas pipelines is the price of oil. Recent higher prices raise the prospects for Caspian Sea energy, but they also encourage reopening some closer, already-developed, marginal fields. Transport costs affect oil prices. Transporting Persian Gulf oil costs $2 to $5 per ton; North Sea oil costs $10 per ton; Caspian Sea oil costs $17 per ton; Siberian oil costs $35 to $45 per ton.[8] Historically, the only pipeline from the Caspian Sea region ran through Chechnya via Baku-Grozny-Novorossiysk. Current uncertainty about political stability is holding back aggressive pipeline development; however, pipelines are being planned, laid and used.

The Russian route. Most Caspian Sea oil and gas are pumped through Russia. The oil flows northwest and eventually reaches Russian and European markets through a well-developed pipeline system. Soon it will again move to the Black Sea, bypassing Chechnya, for transport through the Dardanelles to the Mediterranean. Oil and gas are critical to the struggling Russian economy, in some years constituting 42 to 44 percent of all exports. The Russian government realized $1.5 billion annually from direct foreign oil sales and raised 21 percent of its revenue from duties on foreign trade—the biggest portion of which comes from oil and gas sales.[9] Russia's neighbors complain that Russia asserts a proprietary interest over all Caspian Sea oil and uses the pipelines as leverage in negotiations. The Russians, who discovered the oil fields, developed them and built the transportation and refinery infrastructure, controlled Caspian Sea energy for more than 100 years. The Russians feel entitled to a share and get it by controlling the flow of other nations' oil across Russian territory.

Thus, in spring 1996, Russia reduced the amount of oil it would transport from the huge Tengiz oil field on the northeast Caspian shore. The Russians' reason for reducing the flow was that the Tengiz oil sulfur content was too high and was damaging the pipe. This oil does have a high sulfur content but was shipped from the same field through the same pipe for many years when it belonged to the Soviet Union. Now Chevron and Kazakhstan operate the field on a 50-50 basis. During the Soviet era, no one counted costs. With the reduced flow, Russia attempted to control Kazakhstan's oil industry and economic viability. In 1997 the Caspian Sea consortium of Chevron, Mobil, Russia's Lukoil, Oman and the Kazakh state oil company acceded to Russia's pressure and agreed to build a $2-billion pipeline from Kazakhstan through Russia to Novorossiysk (Route 1).[10] This route maintains Russian control of oil shipment from the region.

The historic Russian line from Baku through Chechnya to Novorossiysk (Route 2) was closed because of the Chechens' continuing struggle with Russia. Both sides reportedly hit the pipeline during the wars, and Chechens exploited it as a source of free oil. Reports from the region indicate that Chechens placed more than 100 taps on the line, drawing off oil to their clandestine refineries and selling cheap gasoline in Grozny. Russia has recently completed a bypass around Chechnya and reactivated the pipeline. Russia has proposed exporting oil north to join its existing pipeline system and reach Novorossiysk or Europe (Route 3). This development could further remove the pipeline from Chechnya and maintain Russia's substantial control of Caspian Sea and Kazakh oil.

The Transcaucasus route. The Azerbaijan International Operating Company (AIOC) is the first international oil consortium set up in Azerbaijan. US oil companies own 39.9 percent of the consortium—Amoco, 17.0 percent; Unocal, 10.0 percent; Exxon, 8.0 percent; and Pennzoil, 4.8 percent. Other countries in the consortium include Britain, 19.0 percent; Azerbaijan, 10.0 percent; Russia's Lukoil, 10.0 percent; Norway, 8.6 percent; Japan, 3.9 percent; Turkey, 6.8 percent; and Saudi Arabia, 1.7 percent.[11] This consortium built an initial line from Baku through Georgia to the Georgian port of Supsa on the Black Sea (Route 4). This pipeline has been pumping a limited amount of oil since l999. While this is a relatively inexpensive option, the oil still has to move from Supsa by oil tanker through the Black Sea and the Bosporus.[12] Turkey controls the traffic between the Black and Mediterranean Seas and does not want increased oil tanker traffic through the straits because of environmental concerns. Russia objects to this route because none of the pipeline passes through Russia. Further, this pipeline runs through domains of many fractious mountain tribes.

The AIOC is also considering a line to the Turkish Mediterranean port of Ceyhan (Route 5). This would give Turkey primacy in exporting Caspian gas and oil, and would cut Russia out of pipeline fee profits and port fees from Novorossiysk. However, there are some problems with building a pipeline to Ceyhan. The route runs through Azerbaijan and Armenia, whose war over Nagorno-Karabakh is at a stalemate. Thus, the Baku-Armenia-Ceyhan route is not a near-term option. Should this conflict be settled, the route also passes through the Kurdish part of Turkey where a suppressed insurrection still simmers. The route would cost $2.9 billion.[13]

The Clinton administration tried to promote a pipeline route from Baku to Tbilisi to Supsa (Route 4) and then underwater from Supsa to Turkey where it would cut across Kurdish Turkey to Ceyhan. An underwater pipeline from Turkmenistan across the Caspian Sea to Baku would back this pipeline. This expensive option required regional political acceptance and oil company backing—neither of which the Clinton administration could obtain.

The Iranian routes. The US government opposes a Baku-Iran-Ceyhan route because of Iran's alleged support of international terrorism. US oil companies are not allowed to ship their oil through Iran, although it is the shortest, cheapest and easiest route to an open port. Iran's preferred route is a pipeline south from the Caspian Sea to the Persian Gulf (Route 7). Iran has an extended pipeline system in place, and Turkmenistan opened a gas pipeline into Iran in December 1997.[14] This comparatively inexpensive option would bring the oil and gas to the troubled Persian Gulf with its easily closed Strait of Hormuz. The United States opposes this pipeline and tries to enforce the sanctions, but other nations' oil firms ignore the sanctions and

cut oil deals with Iran. France (Elf Aquitaine and Total SA); Italy (Agip); the Netherlands (Royal Dutch/Shell and Lamaj); Spain (Repsol); India (BHP); Russia (Lukoil, Zarubezhneft and Mashinoim-port); and China (China National) have all completed or are negotiating major oil deals with Iran.[15] US firms also have interests in such a route and have been lobbying in Washington, DC, for improved relations with Iran.

The Afghanistan route. Several major oil companies have investigated building pipelines from Central Asia through Herat and Kandahar, Afghanistan, and on to Quetta and Karachi, Pakistan, (Route 8) at an estimated cost of $1.9 billion. The distance is relatively short and would bring oil to the Indian subcontinent market. However, Afghanistan is still locked in civil war.[16] Many area residents feel that Unocal backed the Taliban forces financially in return for future pipeline rights in Afghanistan.[17] Unocal and other companies have abandoned attempts at establishing this route since the political situation seems unresolvable.

The China route. China and the Pacific Rim are potentially huge markets for Caspian Sea and Central Asian oil. Oil companies are considering a pipeline from western Kazakhstan through China to the Pacific to serve the Chinese, Japanese and Korean markets (Route 9). The savings realized over current tanker deliveries would have to offset the $8 to $12 billion required to build the pipeline. The Chinese have signed a memorandum of understanding to build a shorter $3.5-billion pipeline that would stop in China proper.[18]

Western Involvement and Concerns in Caspian Sea and Central Asian Energy

More than 40 upstream projects in Kazakhstan and Azerbaijan involve 11 US companies, 24 other Western companies and two Russian companies. The total value of these projects exceeds $100 billion. Companies such as Exxon, Amoco, Mobil and Chevron were negotiating additional contracts in the region and were involved in upstream exploration and production projects as well as various downstream activities—pipeline development, infrastructure development, and environmental restoration and repair. Oil profits represent the likely major revenue for the countries of the Trans-caucasus and Central Asia for the next 15 to 20 years. Oil revenue could also attract other Western business to the region, which should help develop infrastructure and

diversify their economic base. US oil companies, smaller oil support and service companies, and engineering and environmental firms would benefit initially, but secondary industry attracted by the region's economic potential could also benefit. However, the region's political instability and US government policies toward Azerbaijan have slowed or stopped many of these projects which peaked in 1998.[19]

The US Supreme Court has ruled that a US corporation has the same rights as an individual citizen under the 14th Amendment to the Constitution. The US government could reasonably concern itself anywhere US business operates.[20] But in this era of multinational firms and joint ventures, what is and is not a US business is open to interpretation. The concerns of business may become the concerns of gov-ernment and, by extension, military concerns. Oil company concerns in this region include the threat of nationalization; Russia's role in the affairs of its former colonies; the final division of Caspian Sea resources among Russia, Iran, Azerbaijan, Kazakh-stan and Turkmenistan; the future of US-Iranian relations with its impact on energy production and distribution; the impact of Western countries and Japan cutting deals with Iran separate from US oil company interests; how far Russia might go to protect its perceived interests; and pipeline security.

Azerbaijan social and security concerns. Oil has not brought national prosperity to this region's people.[21] Azerbaijan provides a good example. Oil has transformed Baku from a provincial Soviet capital into an international city with a new airport, new hotels and a modern downtown business area.

An oil derrick on the Caspian Sea coast with a motorist water point in the foreground. Aging but serviceable oil infrastructure covers the land and sea of Azerbaijan.

The transformation from the gray Soviet past is striking. Fountain Square, with its McDonald's, fashionable shops, cafes and new business buildings, speaks of wealth and connections to the developed world. There are many well-dressed young women and no sign of the chador, a large cloth used as a head covering, veil or shawl. But in a city of 1.7 million, the small Western part is surrounded by poverty, unemployment and collapsing infrastructure. Most citizens shop in open bazaars. The elite have grown richer and left the rest of the city behind. Most common folks respect President Heydar Aliyev because he brought order, but they complain of terrible economic conditions—a teacher makes $20 per month to support a family, while others cannot find work at all. Bright young entrepreneurs are trying to leave the country. For many, the oil

boom seems to have already played out. The litany among older citizens is that life was much better under communism.

East meets West. A Russian Grandfather Frost and Mickey Mouse greet New Year's crowds in nominally Islamic Baku.

International investment connected with Caspian Sea oil has not been as vast or influential as expected. The Azeri national trauma is the Nagorno-Karabakh war, and the one million refugees who live on the margins of society are constant reminders. The national passion is to regain Karabakh. Large numbers of Chechens who fled the Russian-Chechen wars add to the refugee population. Azeri military presence is not conspicuous, but regular and special police are prominent.

Turkey and Iran battle for influence. Turkey's influence is secular and addresses economic, cultural and political transformation. Iran's influence is religious and conservative-reactionary, and speaks to the myth that fundamentalist Shia Islam would rectify the new order's injustices. So far, there seems to be little evidence that Islamic fundamentalism has made any inroads into Baku. Russian presence remains pervasive in terms of speech on the streets and national norms. New Year's is celebrated in traditional Russian manner, with Grandfather Frost and Mickey Mouse thrown in for good measure. Islam is relaxed and alcohol is common. Before the Communist Revolution, Baku was a cosmopolitan city and an oil town. Post-Soviet Baku is still cosmopolitan but would like to become a petroleum giant. Short of that, it will settle for Aliyev's version of order.

Many of Azerbaijan's eight million people live in the country. Many are peasants whose farming and livestock are unaffected by advanced technology. The central part of Azerbaijan is fairly arid, and the north is forested with birch and oak. High-quality apples, melons, nuts, oats and grapes are prominent crops. Main roads are in disrepair, and secondary roads are mud tracks for four-wheel-drive vehicles. Large numbers of unemployed men stand about on workdays. Few young men and women are visible in the countryside, perhaps indicating flight to the cities. Factories closed with the collapse of the Soviet Union, and power outages are so common that people ignore them. The contrast between Baku and the countryside will continually bring people into the capital where the newcomers will join the displaced refugees from Karabakh. The Azeri government lacks the means and will to provide social services for this marginalized population. Whoever organizes those services will have the political leverage to shape Azerbaijan's future.

Azerbaijan is nominally a Shia Islam country, but the call to prayer is not heard in Baku. The proscriptions against alcohol are not observed, and women are not in purdah—secluding them from public observation. However, mosques are reopening, and many new ones are being built as gifts from Iran. Reasonably priced Iranian religious material is sold outside many of these mosques.

Russian President Putin's motorcade rushes past a Chevron billboard (*left*) during his visit to Baku, January 2001.

Russian President Vladimir Putin visited Baku in January 2001 to demonstrate that Russia is still a major factor in the area. Putin mounted a political assault on the notion that Azerbaijan could or should link its future to the Georgia, Ukraine, Uzbekistan, Azerbaijan and Moldova (GUUAM) group as a counterweight to Moscow. Putin stressed a broad range of economic benefits Russia could offer Azerbaijan and made it clear that Russian forces compelled to leave Georgia would redeploy to Armenia, having backed Armenia during the Azeri- Armenian war. Rather than risk heavy Russian pressure, the Aliyev government honored the Russian president. Putin won cooperation on energy rights in the Caspian region and pledged support to Azerbaijan's territorial integrity in settling Karabakh. Putin spoke of a solution to regional problems as a matter for negotiation and cooperation among the Caucasus Four—Russia, Azerbaijan, Armenia and Georgia. The Azeri press noted that he did not mention Iran or Turkey as Caucasian states.

The Azeri government seems to have tacked to a Russian line, in part, as a result of Russian hardball regional policies following military intervention in Chechnya. Only days before Putin's arrival in Baku, Moscow had cut off Georgia's supply of natural gas, plunging the country into the cold and dark. Russia had accused Georgia of allowing Chechnya to use its territory and had threatened to eliminate the Chechen presence forcefully, with or without Georgian cooperation. Aliyev's government has calculated that confronting Putin involves too much risk. Azerbaijan clearly needs Russian economic and technical assistance with its collapsing infrastructure.

Russia also has influence over Karabakh, especially if Azerbaijan sees the West embracing Armenian interests at the expense of Azerbaijan and Turkey—its closest Western friends. Azeris speculate about another rationale for the latest tack toward Russia. Domestic politics in Azerbaijan has been fueled by running speculation about presidential succession after Aliyev, who has been ill. Russian intervention to support some faction could undermine stability, so

Azerbaijan needs an early understanding with Russia and its interests. The Azeri press presented the Putin visit as a Russian victory and a US loss.

Operational concerns and pipeline security. Military security of the Caspian Sea region is difficult. The various regional militaries are small, un-derresourced and better designed for theater war than for combating guerrillas, narcotraffickers and gangs who threaten the area. It is difficult for outside forces to access the area. The west-east route from the Black Sea through Georgia to Baku is easily cut and supports a limited line of communications. Primary access routes into the Baku area for division and larger forces are north and south—through Iran or Russia. These access routes each have two poorly maintained two-lane roads and a set of double railroad tracks. A well-placed battalion could close the access routes indefinitely at some points and could only be dislodged by an amphibious end run.

The region is politically unstable, and most proposed pipeline routes run through areas of current or recent conflict. Who will secure the pipelines and at what price? AIOC representatives have met with Chechen leaders who stated that no oil would flow through any pipeline in Chechnya, Georgia or the Transcaucasus unless they received a share of the consortium. Similar difficulties exist along other proposed pipeline routes. Currently, Russia is losing major quantities of oil and gas in the pipeline that runs through Ukraine into Europe. Despite Russia's best efforts, it cannot negotiate safe passage of energy in a fairly settled region.[22]

During the Soviet-Afghan war, the Soviets built tactical pipelines along the eastern (Termez to Bagram) and western corridors (Kushka to Shind-and). Although the Mujahideen preferred more heroic attacks on Soviet convoys and forces to mundane attacks on pipelines, the Mujahideen conducted enough attacks on the Soviet pipelines to tie down a significant number of forces. Sometimes the Soviets lost more than 500 metric tons of petroleum, oils and lubricants (POL) in a day. The average pipeline break cost 20 to 25 tons. The Soviets patrolled pipelines, established security outposts along them in high-risk areas and cut deals with local chieftains to exchange POL for pipeline security. Despite all this, the modern mechanized Soviet force never could guarantee pipeline security.[23]

In the next 10 to 15 years, oil and gas exports from the Caspian Sea and Central Asia could possibly match those from the Persian Gulf, although this projection may be based on optimistic estimates. The United States considers the Persian Gulf an area of vital interest. Will the Caspian Sea region also become an area of vital interest? Increased Western commercial activity, US strategic interests and US law point in that direction. If so, the United States should examine its relationship with Russia, Iran, Turkey and the other regional states. Developing a new market source of inexpensive energy would provide an alternative during tense or crisis situations. Should a rogue power close the Strait of Hormuz or organize a global cut in production, this new region would provide alternatives to armed confrontation or diplomatic capitulation. However, this new region is not easily accessible to the West and will create new security concerns that eventually will affect military planners.

A mosque nears completion at the "Five Fingers," a sacred geological site, as vendors wait for customers for their US and regional soft drinks. Neighboring Iran has funded largely Azerbaijan's huge upsurge in mosque construction.

Turkey declined an Azeri government invitation to build a base in Azerbaijan. A Turkish presence in this area could work to US advantage, but Russia is openly opposed to such basing. To date, US attempts at presence have been spectacular but hardly sustainable. In September 1997, 500 soldiers of the 82d Airborne Division flew 12,500 kilometers in 19 hours to conduct an airborne drop in Kazakhstan. Retiring commander in chief, US Atlantic Command, Marine Corps General John J. Sheehan led the drop. Although the paratroopers participated in a regional peacekeeping exercise with troops from Kazakhstan, Uzbekistan, Kyrgyzstan, Georgia, Latvia, Turkey and Russia, many in the region saw the US move as an advertisement for US power-projection capability. Sheehan stated that "The message, I guess, is that there is no nation on the face of the earth that we cannot get to."[24] The fundamental question is whether the United States can maintain a meaningful presence there during a crisis or conflict.

An airhead in an underdeveloped theater thousands of kilometers away from theater logistics stocks is not power projection, nor are 500 paratroopers an operational force. Should the United States decide it needs to get more involved in this region, it should begin with advisory and assistance efforts to promote regional stability. There are have and have-not nations and groups in the region. An agreement with one party will often make an implacable enemy of another. Hopefully, commercial well-being will transfer to national and regional well-being—though this has seldom been the case with oil wealth—and the region will ensure the safe transit of oil and gas without any outside interference.

Should the United States decide to establish a strong presence in the area, it would have to create the supporting logistics and staging infrastructure in advance. This would be an expensive step, requiring expenditure of domestic and international political capital; approval of local nations; a clear vision of US future strategic interests; and construction and maintenance of a new, large overseas base.[25] Perhaps a wiser approach is to promote closer relations and provide additional aid to our long-term regional partner, Turkey.

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1. S. Rob Sobhani, "Tapping into a Pipe Dream," *Washington Times*, 1 February 2001, 17. Much of this article is based on Lester W. Grau, "Petroleo y Gas Natural del Mar Caspio, y Asia Central," Spanish-language edition of *Military Review* (March-April 1998), 73-81.

2. Ahmed Rashid, "Power Play," *Far Eastern Economic Review* (10 April 1997), 22.

3. Tyler Marshall, "Caspian Sea: Oil in a Tinderbox," *The Kansas City Star* (8 March 1998), K-6; the oil reserves of Venezuela are some 63.3 billion barrels. See "Venezuela," *Jane's Sentinel* (Jane's Information Group, 1995), 26.

4. Ruth Daniloff, "Waiting for the Oil Boom," *Smithsonian* (January 1998), 26; Extrapolated from Marshall.

5. Stephen Kinzer, "Pipe Dreams: A Perilous New Contest for the Next Oil Prize," *The New York Times* (24 September 1997), IV-1.

6. Discussions with Garrett Fonda and Tom Banks of Foreign Systems Research Center of Greenwood Village, Colorado. The size of the Caspian oil reserves are a matter of continued conjecture. Some sources put it at 10 percent of the world's oil reserves or five times US oil reserves. See Sobhani.

7. Fonda and Banks. Sobhani estimates that the 5-million-daily production will be achieved earlier in 2005.

8. Timothy L. Thomas, "Russian National Interests and the Caspian Sea," *Perceptions* (December 1999-February 2000), 75-96.

9. Leslie Dienes, "The Russian Oil and Gas Sector: Implications of the New Property System," *The National Bureau of Asian Research* (March 1996), 22.

10. "Pipeline Poker," *The Economist*, (7 February 1998), 8; a special Central Asia survey insert. Map is derived from the map used in this article.

11. Carol J. Williams, "Caspian Sea Change: Moscow, Through Oil Giant Lukoil, is Taking a More Pragmatic Approach in the Quest for its Former Colonies' Natural Bounty," *Los Angeles Times* (8 December 1996), extracted from the Internet. The figures have been rounded off.

12. "Pipeline Poker."

13. Ibid. Moving oil by supertanker is cheaper than moving oil by pipeline, but supertankers cannot operate in the Dardanelles.

14. Ibid.

15. Bhushan Bahree, "Demands for Oil Influence Policy in Gulf," *The Wall Street Journal* (23 February 1998), A17.

16. "Pipeline Poker," 11.

17. Comments to the author during an extended sojourn in Pakistan during fall 1996.

18. "Pipeline Poker."

19. Armenia and Azerbaijan have been fighting over the Nagorno-Karabakh region since 1988. The Soviet Union backed Armenia and invaded Azerbaijan in January 1990—occupying Sumgait and Baku. Armenia now holds 20 to 25 percent of Azeri's territory. Azerbaijan blockaded land-locked Armenia in response. The US Congress imposed Section 907 of the 1992 Freedom Support Act on Azerbaijan. This prohibits virtually all US government aid to Azerbaijan. Section 907 stipulates that the United States cannot give assistance until hostilities cease and Azerbaijan halts its blockade of Armenia and the breakaway Nagorno-Karabakh region. The legislative restrictions assume that Azerbaijan is the aggressor and Azerbaijan is violating norms of international conduct by maintaining a blockade against its neighbor. The blockade has caused hardship to Armenia. US economic and humanitarian aid has supported Armenia. Section 907 hinders the United States' ability to influence Azerbaijan's development, inhibits efforts to diversify the US energy supply and damages US economic interests.

20. In the 1950s, the Eisenhower administration determined that access to international oil was a US strategic concern and that antitrust laws did not apply to international oil corporations. See Burton Ira Kaufman, *The Oil Cartel Case: A Documentary Study of Antitrust Activity in the Cold War Era*, and *Trade and Aid: Eisenhower's Foreign Economic Policy, 1953-1961*.

21. The author visited Baku 20 years ago and again in January 2001 with his associate, Dr. Jacob Kipp. Much of this section is based on their impressions from these visits.

22. Discussions the author had with acquaintances in Moscow in December 1997.

23. Boris V. Gromov, *Organichennyy kontinge* [*Limited Contingent*] (Moscow: Progress, 1994), 289-90.

24. Hugh Pope, "US Plays High-Stakes War Games in Kazakstan," *The Wall Street Journal* (16 September 1997), A16.

25. For further background, see the following Conflict Studies Research Centre studies: Charles Blandy, "The Caspian: A Sea of Troubles," 1997; "Oil is not the Only Stake," 1997; "The Impact of Baku Oil on Nagornyy Karabakh," 1997; and "The Caspian: A Catastrophe in the Making," 1997. Michael Off, "The Regional Military Balance: Conventional and Unconventional Military Forces Around the Caspian," 1995. An excellent history of the region is Dilip Hiro, *Between Marx and Muhammad: The Changing Face of Central Asia* (Glasgow: Harper Collins, 1994). An excellent history of oil is Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power* (New York: Simon & Schuster, 1991).

Photos courtesy of the author